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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/685,409

10/16/2003

Toru Iwane

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ALEXANDRIA, VA 22320-4850

EXAMINER

HENN, TIMOTHY J

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

01/07/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/685,409	Applicant(s) IWANE ET AL.	
	Examiner Timothy J. Henn	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 November 2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (JP 09-043542) in view of Shouji et al. (US 5,820,779).

[claim 28]

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5. Regarding claim 28, Saito discloses an optical low-pass filter which includes a first and second quartz sheet glued together, the first cut parallelly from a quartz wafer W1 and the second cut at an angle from a quartz wafer W2 (Figure 1). However, Saito uses crystal birefringent plates instead of laminated polymer sheets as claimed.

6. Shouji discloses that polymer film materials exhibit birefringence properties (c. 7, ll. 1-19) and result in lighter-weight and thinner low pass filters when compared with using quartz materials (c. 2, ll. 35-38; c. 11, ll. 45-58). Shouji further discloses that the polymer film materials may be laminated together to form polymer material suitable for use in optical low pass filters. Therefore, it would be obvious to use a laminated polymer material as claimed in place of a quartz material in the optical low-pass filter of Saito to achieve a low pass filter which is smaller and of lighter-weight.

7. It is noted that if the laminated polymer film is cut diagonally to produce an optical low-pass filter as taught by Saito (Figure 1), an interface of an angle greater than 0 degrees to an entrance surface of the optical low-pass filter would exist. Furthermore the interface of the laminated product would extend diagonally relative to the entrance surface of the optical low-pass filter as claimed.

[claim 30]

8. Regarding claim 30, Shouji discloses a polymer material formed by solidifying liquid crystal molecules along a predetermined direction (Figures 1 and 2; c. 8, l. 64 - c. 9, l. 53).

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (JP 09-043542) in view of Shouji et al. (US 5,820,779) in view of Mazaki et al. (US

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5,578,243).

[claim 29]

Regarding claim 29, Shouji discloses polymer optical low-pass filters, but does not disclose a polymer material which is a drawn material obtained by drawing in one direction a polymer material achieving substantial optical isotropy. Mazaki discloses that polymer films for optical filters can be obtained by stretching or “drawing” a polymer film such as a polycarbonate film (c. 1, ll. 13-29). Since Shouji discloses that the polymer film can be produced and combined in multiple different ways (e.g. Examples 1-8), it would at least be obvious to use the drawing method of Mazaki to produce the polymer film. Such a method is a well known alternative for producing polymer films and would provide no more than predictable results.

10. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (JP 09-043542) in view of Shouji et al. (US 5,820,779) in view of Osawa et al. (US 6,327,085).

[claim 31]

Regarding claim 31, Shouji discloses polymer optical low-pass filters, but does not disclose a conductive coating applied to a surface of the filter. Osawa discloses an optical filter including conductive coatings applied to front and back sides (Figures 16-18), wherein the conductive coatings prevent dust and lint from adhering to the optical filter (c. 26, ll. 41-51). Therefore, it would be obvious to include a conductive coating in the filter of Shouji to prevent dust and lint from adhering to the filter.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Henn whose telephone number is (571) 272-7310. The examiner can normally be reached on M-F 11-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J Henn/
Primary Examiner, Art Unit 2622